

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 2

PATENT

IN THE CLAIMS:

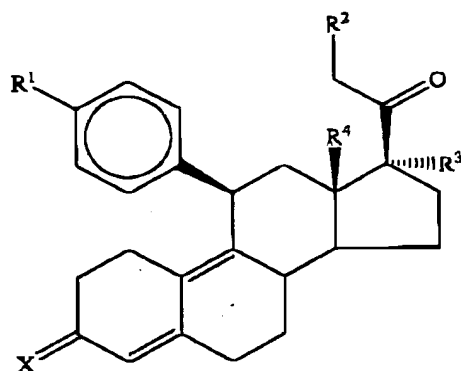
Please cancel claim 16 without prejudice or disclaimer.

Please amend claim 1 and add new claims 61-65 as follows.

This listing of claims will replace all versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A compound having the general formula:



I

wherein:

R^1 is a member selected from the group consisting of $-OCH_3$, $-SCH_3$, $-N(CH_3)_2$, $-NHCH_3$, $-NC_4H_8$, $-NC_5H_{10}$, $-NC_4H_8O$, $-CHO$, $-CH(OH)CH_3$, $-C(O)CH_3$, $-O(CH_2)_2N(CH_3)_2$, $-O(CH_2)_2NC_4H_8$, and $-O(CH_2)_2NC_5H_{10}$;

R^2 is a member selected from the group consisting of hydrogen, halogen, alkyl, acyl, hydroxy, alkoxy, acyloxy, alkylcarbonate, cypionyloxy, S-alkyl, $-SCN$, S-acyl, and $-OC(O)R^6$, wherein R^6 is a member selected from the group consisting of alkyl, alkoxy ester and alkoxy;

R^3 is a member selected from the group consisting of alkyl-alkoxy, alkoxy and acyloxy;

R^4 is a member selected from the group consisting of hydrogen and alkyl;

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 3

PATENT

14 X is a member selected from the group consisting of =O and =N-OR⁵, wherein R⁵
15 is a member selected from the group consisting of hydrogen and alkyl; and
16 wherein:
17 if R¹ is -C(O)CH₃, -N(CH₃)₂ or -NHCH₃, R² is hydrogen, R³ is acetyloxy and R⁴
18 is methyl, then X is other than =O; and
19 if R¹ is -N(CH₃)₂, R² is hydroxy, R⁴ is alkyl and X is =O, then R³ is other than
20 hydroxy.

1 2. (Original) The compound in accordance with claim 1, wherein R¹ is a member
2 selected from the group consisting of -N(CH₃)₂, -NC₄H₈, -NC₅H₁₀, -NC₄H₈O, -C(O)CH₃,
3 -O(CH₂)₂N(CH₃)₂, -O(CH₂)₂NC₄H₈, and -O(CH₂)₂NC₅H₁₀.

1 3. (Previously amended) The compound in accordance with claim 1, wherein R²
2 is a member selected from the group consisting of hydrogen, acyloxy, alkoxy, -SAc, -SCN,
3 -OC(O)CH₂N(CH₃)₂, and -OC(O)R⁶, wherein R⁶ is a member selected from the group consisting
4 of alky, alkoxy ester and alkoxy.

1 4. (Withdrawn) The compound in accordance with claim 3, wherein R² is
2 -OC(O)R⁶ and R⁶ is a member selected from the group consisting of -CH₂CH₃, -CH₂OCH₃ and
3 -OCH₃.

1 5. (Original) The compound in accordance with claim 1, wherein R² is an alkoxy
2 selected from the group consisting of methoxy, ethoxy, vinyloxy, ethynyloxy and
3 cyclopropyloxy.

1 6. (Previously amended) The compound in accordance with claim 1, wherein R³
2 is a member selected from the group consisting of alkoxy and acyloxy.

1 7. (Original) The compound in accordance with claim 1, wherein R⁴ is alkyl.

1 8. (Original) The compound in accordance with claim 1, wherein X is =O.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 4

PATENT

1 9. (Withdrawn) The compound in accordance with claim 1, wherein X is
2 =N-OR⁵.

1 10. (Withdrawn) The compound in accordance with claim 1, wherein:
2 R¹ is -N(CH₃)₂;
3 R² is hydrogen;
4 R³ is acyloxy;
5 R⁴ is methyl; and
6 X is =O.

1 11. (Withdrawn) The compound in accordance with claim 10, wherein R³ is
2 acyloxy selected from the group consisting of -OC(O)H, -OC(O)CH₂CH₃ and -OC(O)C₆H₁₃.

1 12. (Withdrawn) The compound in accordance with claim 1, wherein:
2 R¹ is -N(CH₃)₂;
3 R² is hydrogen;
4 R³ is methoxymethyl;
5 R⁴ is methyl; and
6 X is =O.

1 13. (Withdrawn) The compound in accordance with claim 1, wherein:
2 R¹ is -NC₄H₈;
3 R² is hydrogen;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

1 14. (Withdrawn) The compound in accordance with claim 1, wherein:
2 R¹ is -NC₅H₁₀;

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 5

PATENT

3 R² is hydrogen;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

1 15. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -NC₄H₈O;
3 R² is hydrogen;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

16. Cancelled.

1 17. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -SCH₃;
3 R² is hydrogen;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

1 18. (Previously amended) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is hydrogen;
4 R³ is methoxy;
5 R⁴ is methyl; and
6 X is =O.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 6

PATENT

1 19. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-NC_5H_{10}$;

3 R^2 is hydrogen;

4 R^3 is methoxy;

5 R^4 is methyl; and

6 X is =O.

1 20. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-NC_5H_{10}$;

3 R^2 is acetoxy;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is =O.

1 21. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-C(O)CH_3$;

3 R^2 is acetoxy;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is =O.

1 22. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-C(O)CH_3$;

3 R^2 is $-SAc$;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is =O.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 7

PATENT

1 23. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -C(O)CH₃;

3 R² is methoxy;

4 R³ is methoxy;

5 R⁴ is methyl; and

6 X is =O.

1 24. (Original) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;

3 R² is methoxy;

4 R³ is methoxy;

5 R⁴ is methyl; and

6 X is =O.

1 25. (Original) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;

3 R² is methoxy;

4 R³ is ethoxy;

5 R⁴ is methyl; and

6 X is =O.

1 26. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -NC₄H₉;

3 R² is methoxy;

4 R³ is methoxy;

5 R⁴ is methyl; and

6 X is =O.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 8

PATENT

1 27. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -NC₅H₁₀;

3 R² is methoxy;

4 R³ is methoxy;

5 R⁴ is methyl; and

6 X is =O.

1 28. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -NC₅H₁₀;

3 R² is methoxy;

4 R³ is acetoxy;

5 R⁴ is methyl; and

6 X is =O.

1 29. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -C(O)CH₃;

3 R² is methoxy;

4 R³ is acetoxy;

5 R⁴ is methyl; and

6 X is =O.

1 30. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -O(CH₂)₂N(CH₃)₂;

3 R² is methoxy;

4 R³ is acetoxy;

5 R⁴ is methyl; and

6 X is =O.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 9

PATENT

1 31. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-O(CH_2)_2NC_4H_9$;

3 R^2 is methoxy;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is =O.

1 32. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-O(CH_2)_2NC_5H_{10}$;

3 R^2 is methoxy;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is =O.

1 33. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;

3 R^2 is $-OC(O)CH_2CH_3$;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is =O.

1 34. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;

3 R^2 is $-OC(O)CH_2OCH_3$;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is =O.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 10

PATENT

1 35. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;
3 R^2 is $-OC(O)OCH_3$;
4 R^3 is acetoxy;
5 R^4 is methyl; and
6 X is $=O$.

1 36. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;
3 R^2 is $-OCH=CH_2$;
4 R^3 is acetoxy;
5 R^4 is methyl; and
6 X is $=O$.

1 37. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;
3 R^2 is $-OCH=CH_2$;
4 R^3 is methoxy;
5 R^4 is methyl; and
6 X is $=O$.

1 38. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;
3 R^2 is $-OCH=CH_2$;
4 R^3 is ethoxy;
5 R^4 is methyl; and
6 X is $=O$.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 11

PATENT

1 39. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;

3 R^2 is $-SCN$;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is $=O$.

1 40. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;

3 R^2 is $-OC(O)H$;

4 R^3 is $-OC(O)H$;

5 R^4 is methyl; and

6 X is $=O$.

1 41. Cancelled.

1 42. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-N(CH_3)_2$;

3 R^2 is $-OC(O)CH_2N(CH_3)_2$;

4 R^3 is acetoxy;

5 R^4 is methyl; and

6 X is $=O$.

1 43. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R^1 is $-NC_5H_{10}$;

3 R^2 is hydrogen;

4 R^3 is acetoxy;

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 12

PATENT

5 R⁴ is methyl; and
6 X is =N-OR⁵, wherein R⁵ is hydrogen.

1 44. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is hydrogen;
4 R³ is methoxy;
5 R⁴ is methyl; and
6 X is =N-OR⁵, wherein R⁵ is hydrogen.

1 45. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -NC₅H₁₀;
3 R² is hydrogen;
4 R³ is methoxy;
5 R⁴ is methyl; and
6 X is =N-OR⁵, wherein R⁵ is hydrogen.

1 46. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is methoxy;
4 R³ is methoxy;
5 R⁴ is methyl; and
6 X is =N-OR⁵, wherein R⁵ is hydrogen.

1 47. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -NHCH₃;
3 R² is methoxy;
4 R³ is acetoxy;
5 R⁴ is methyl; and

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 13

PATENT

6 X is =O.

1 48. (Withdrawn) The compound in accordance with claim 1, wherein:

2 R¹ is -NHCH₃;

3 R² is acetoxy;

4 R³ is acetoxy;

5 R⁴ is methyl; and

6 X is =O.

1 49. (Original) A pharmaceutical composition comprising an effective amount of
2 a compound in accordance with claim 1 and a pharmaceutically acceptable excipient.

1 50. (Withdrawn) A method of producing an antiprogestational effect in a patient,
2 said method comprising administering to said patient an effective amount of a compound in
3 accordance with claim 1.

1 51. (Withdrawn) A method of inducing menses in a patient, said method
2 comprising administering to said patient an effective amount of a compound in accordance with
3 claim 1.

1 52. (Withdrawn) A method of treating endometriosis, said method comprising
2 administering to said patient an effective amount of a compound in accordance with claim 1.

1 53. (Withdrawn) A method of treating dysmenorrhea, said method comprising
2 administering to said patient an effective amount of a compound in accordance with claim 1.

1 54. (Withdrawn) A method of treating endocrine hormone-dependent tumors,
2 said method comprising administering to said patient an effective amount of a compound in
3 accordance with claim 1.

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 14

PATENT

1 55. (Withdrawn) A method of treating meningiomas, said method comprising
2 administering to said patient an effective amount of a compound in accordance with claim 1.

1 56. (Withdrawn) A method of treating uterine fibroids in a patient, said method
2 comprising administering to said patient an effective amount of a compound in accordance with
3 claim 1.

1 57. (Withdrawn) A method of inhibiting uterine endometrial proliferation in a
2 patient, said method comprising administering to said patient an effective amount of a compound
3 in accordance with claim 1.

1 58. (Withdrawn) A method of inducing labor, said method comprising
2 administering to a patient an effective amount of a compound in accordance with claim 1.

1 59. (Withdrawn) A method of contraception, said method comprising
2 administering to a patient an effective amount of a compound in accordance with claim 1.

1 60. (Withdrawn) A method of postcoital contraception, said method comprising
2 administering to a patient an effective amount of a compound in accordance with claim 1.

1 61. (New) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is methoxy;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

1 62. (New) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is acetoxy;

Hyun K. Kim, *et al.*
Application No.: 09/526,855
Page 15

PATENT

4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

1 63. (New) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is ethoxy;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

1 64. (New) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is -OC(O)CH₂CH₂C₃H₉;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.

1 65. (New) The compound in accordance with claim 1, wherein:

2 R¹ is -N(CH₃)₂;
3 R² is hydroxy;
4 R³ is acetoxy;
5 R⁴ is methyl; and
6 X is =O.